

**1994 ANNUAL REPORT OF THE BOARD OF
TRUSTEES OF THE FEDERAL SUPPLEMENTARY
MEDICAL INSURANCE TRUST FUND**

COMMUNICATION

FROM

**THE BOARD OF TRUSTEES,
FEDERAL SUPPLEMENTARY MEDICAL
INSURANCE TRUST FUND**

TRANSMITTING

**THE 1994 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE
FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND,
PURSUANT TO SECTION 1841(b) OF THE SOCIAL SECURITY ACT,
AS AMENDED**



**APRIL 12, 1994.—Referred jointly to the Committees on Ways and Means
and Energy and Commerce, and ordered to be printed**

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LETTER OF TRANSMITTAL

BOARD OF TRUSTEES OF THE
FEDERAL SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND
Washington, D.C., April 11, 1994

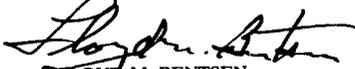
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Speaker of the House of Representatives
Washington, D.C.

HONORABLE ALBERT GORE, JR
President of the Senate
Washington, D.C.

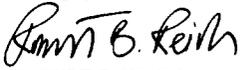
GENTLEMEN:

We have the honor of transmitting to you the 1994 Annual Report of the Board of Trustees of the Federal Supplementary Medical Insurance Trust Fund (the 29th such report), in compliance with the provisions of section 1841(b) of the Social Security Act.

Respectfully,



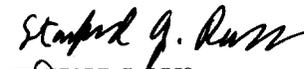
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Managing Trustee of the Trust Fund*



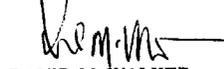
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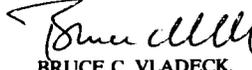
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Trustee



DAVID M. WALKER,
Trustee



BRUCE C. VLADECK,
*Administrator of the Health Care
Financing Administration,
and Secretary, Board of Trustees*

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I. OVERVIEW

A. SUMMARY

1. Operations of the Supplementary Medical Insurance Program

The supplementary medical insurance (SMI) program pays for physician services, outpatient hospital services, and other medical expenses for aged 65 and over and for the long-term disabled. In calendar year (CY) 1993, 34.6 million persons were covered under SMI. General revenue contributions during 1993 amounted to \$41.5 billion, accounting for 71.9 percent of all SMI income. About 24.6 percent of all income resulted from the premiums paid by the enrollees. Interest payments to the SMI fund accounted for the remaining 3.5 percent. Of the \$57.8 billion in SMI disbursements, \$54.0 billion was for benefit payments, \$1.8 billion was for the transfer of the SMI catastrophic coverage reserve fund to the hospital insurance (HI) trust fund, and the remaining was spent for administrative expenses. SMI administrative expenses were 3.6 percent of the total of benefit payments and administrative expenses.

The SMI program essentially is yearly renewable term insurance financed from premium income paid by the enrollees and from income contributed from general revenue by the federal government. This means that the SMI program is financed on an accrual basis with a contingency margin, and, therefore, the SMI trust fund should always be somewhat greater than the claims that have been incurred by enrollees but not yet paid by the program. The trust fund holds all of the income not currently needed to pay benefits and related expenses. The assets of the fund may not be used for any other purpose; however, they may be invested in certain interest-bearing obligations of the federal government.

Financing for the SMI program is established annually on the basis of standard monthly premium rates (paid by or on behalf of all participants) and monthly actuarial rates determined separately for aged and disabled beneficiaries on which general revenue contributions are based. Prior to the 6-month transition period (July 1, 1983 through December 31, 1983), these rates were applicable in the 12-month periods ending June 30. Beginning January 1, 1984, the annual basis was changed to calendar years. Monthly actuarial rates are equal to one-half the monthly amounts necessary to finance the SMI program. These rates determine the amount to be contributed from general revenues on behalf of each enrollee. Pursuant to the formula in the

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law, the Government contribution effectively makes up the difference between twice the monthly actuarial rates and the standard monthly premium rate.

The financial status of the program depends on both the total net assets and total liabilities. It is, therefore, necessary to examine the incurred experience of the program, since it is this experience that is used to determine the actuarial rates discussed above and which forms the basis of the concept of actuarial soundness as it relates to the SMI program.

The concept of actuarial soundness, as it applies to the SMI program, is closely related to the concept as it applies to many private group insurance plans. The SMI program is essentially yearly renewable term insurance financed from premium income paid by the enrollees, from income contributed from general revenue, and from interest payments on the trust fund assets.

In testing the actuarial soundness of the SMI program, it is appropriate to look only to the periods for which the enrollee premium rates and level of general revenue financing have been established. The primary tests of actuarial soundness, then, are that: (1) assets and income for years for which financing has been established be sufficient to meet the projected benefits and associated administrative expenses incurred for that period and (2) assets be sufficient to cover projected liabilities that will have been incurred by the end of that time but will not have been paid yet. Even if these tests of actuarial soundness are not met, the program can continue to operate if the trust fund remains at a level adequate to permit the payment of claims as presented. However, to protect against the possibility that cost increases under the program will be higher than assumed, assets should be sufficient to cover a reasonable degree of variation between actual and projected costs in case actual costs exceed projected.

The primary tests for actuarial soundness and trust fund adequacy can be viewed by direct examination of absolute dollar levels. In providing an appropriate contingency or margin for variation, however, there must also be some relative measure. The relative measure or ratio used for this purpose is the ratio of the assets less liabilities to the following year's incurred expenditures.

2. Conclusion of the Board of Trustees

The financing established through December 1994 is sufficient to cover projected benefits and administrative costs incurred through that time period. This financing is sufficient to maintain a level of trust fund assets which is adequate to cover a reasonable degree of variation between actual costs and projected costs in case actual costs exceed projected. On this basis, the SMI program can thus be said to be actuarially sound.

Although the SMI program is currently actuarially sound, the Trustees note with great concern the past and projected rapid growth in the cost of the program. In spite of the evidence of slower growth rates in the recent past, overall, the past growth rates have been rapid, and the future growth rates are projected to increase above those of the recent past. Growth rates have been so rapid that outlays of the program have increased 59 percent in aggregate and 45 percent per enrollee in the last 5 years. For the same time period, the program grew 23 percent faster than the economy despite recent efforts to control the cost of the program. As a result, the incurred disbursements of the program are projected to increase from 0.88 percent of the Gross Domestic Product (GDP) in CY 1993 to 4.37 percent of GDP in CY 2068. Initially, this rapid growth is attributable primarily to the inability to control (1) the growth in the volume of services billed per beneficiary and (2) the reported case mix intensity (the reporting of services which receive higher reimbursement). Later in the projection period, the changing demographic composition of the population will also have a major influence on the growth in program costs. Given the past and projected cost of the program, the Trustees urge the Congress to promptly take additional actions designed to control SMI costs through specific program legislation and as a part of enacting more comprehensive health care reform. The Trustees believe that prompt, effective, and decisive action is necessary.

B. THE BOARD OF TRUSTEES

The Federal Supplementary Medical Insurance Trust Fund, established on July 30, 1965, is held by the Board of Trustees under the authority of section 1841(b) of the Social Security Act, as amended. The Board is composed of five members, three of whom serve in an ex officio capacity: the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health and Human Services. The President nominated and the Senate confirmed Stanford G.

Overview

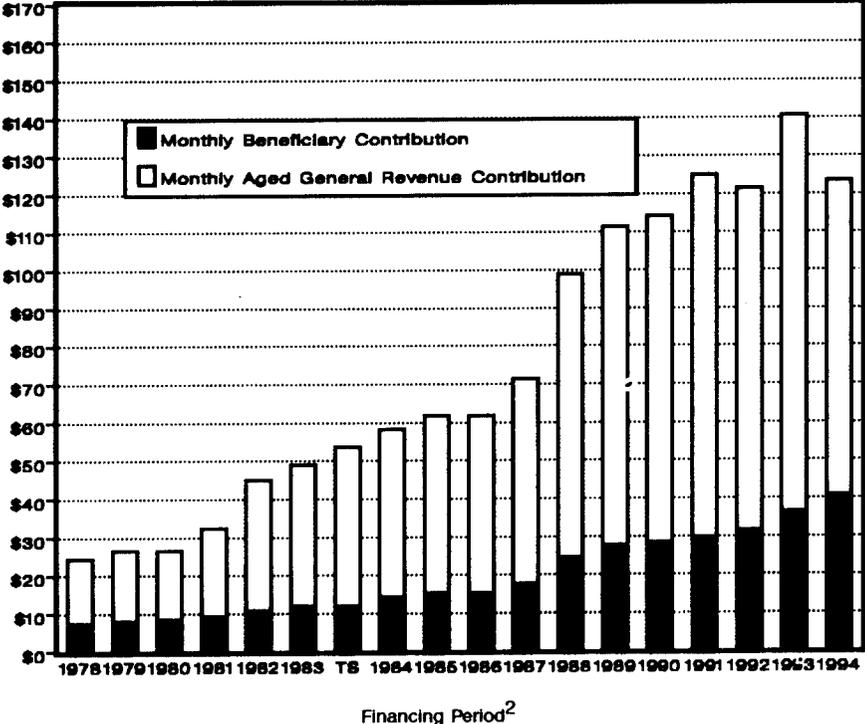
Ross and David M. Walker to be the other two members, who serve as representatives of the public. Mr. Ross and Mr. Walker are serving 4-year terms that began on October 2, 1990.

By law, the Secretary of the Treasury is designated as the Board Chairperson and the Managing Trustee, and the Administrator of the Health Care Financing Administration (HCFA) is designated as Secretary of the Board. The Board of Trustees reports to the Congress each year on the operation and status of the trust fund, in compliance with section 1841(b)(2) of the Social Security Act. This annual report, for 1994, is the 29th such report.

C. EXPECTED OPERATIONS AND STATUS OF THE TRUST FUND

Financing for the SMI program is established annually on the basis of standard monthly premium rates (paid by or on behalf of the enrollees) and actuarial rates on which general revenue contributions are based. Beginning January 1, 1984, the annual basis has been the calendar year. For 1989, only, the financing was established also on the basis of the catastrophic coverage monthly premium rate. Figures 1 and 2 present these values for financing periods since 1978. These figures clearly indicate the extent to which general revenue financing is the major source of income for the program.

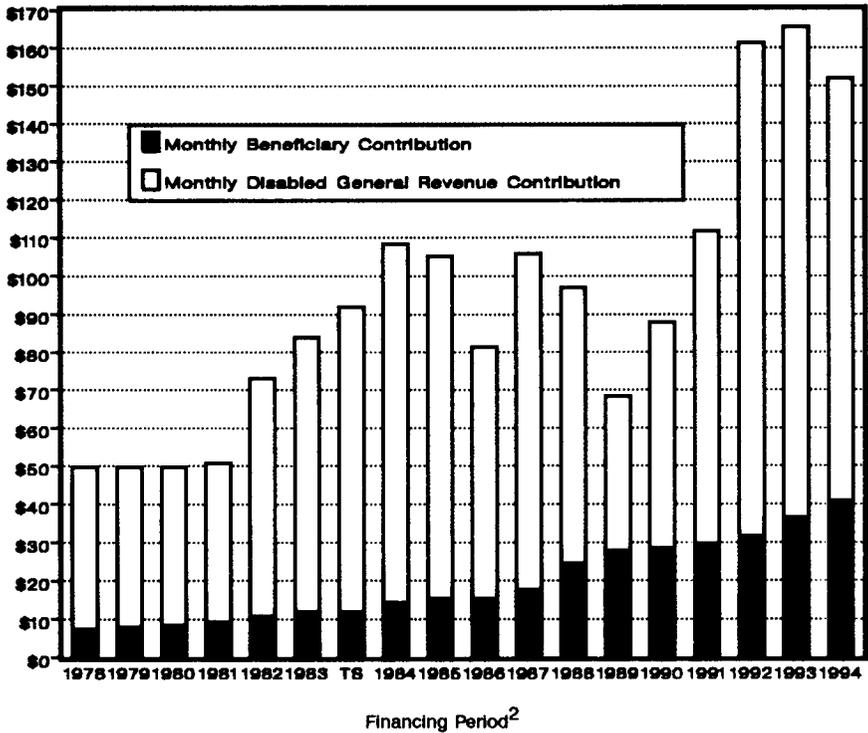
**FIGURE 1
SUPPLEMENTARY MEDICAL INSURANCE AGED MONTHLY PER CAPITA INCOME¹**



¹The amounts shown do not include the catastrophic coverage monthly premium rate for 1989.

²For periods 1983 and earlier, the financing period is July 1 through June 30. For the transitional semester (T.S.), the financing period is July 1, 1983 through December 31, 1983. For 1984 through 1994 the financing period is January 1 through December 31.

**FIGURE 2
SUPPLEMENTARY MEDICAL INSURANCE DISABLED MONTHLY PER CAPITA
INCOME¹**



¹The amounts shown do not include the catastrophic coverage monthly premium rate for 1989.

²For periods 1983 and earlier, the financing period is July 1 through June 30. For the transitional semester (T.S.), the financing period is July 1, 1983 through December 31, 1983. For 1984 through 1994 the financing period is January 1 through December 31.

Although standard monthly premium rates have been set for periods through December 31, 1995 and actuarial rates have been set for periods through December 31, 1994, estimates in the report are presented for periods beyond those times. It has been assumed in this report that financing for those periods will be established in accordance with the provisions described in the section II.B "Nature of the Trust Fund."

The estimates shown in Tables I.C1, I.C2, and I.C3 are based on the economic assumptions labeled "intermediate assumptions." The economic and demographic assumptions underlying the estimates under the intermediate

Expected Operations

assumptions are described in detail in the 1994 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. The section II.D "Actuarial Methodology and Principal Assumptions for Cost Estimates for the Supplementary Medical Insurance Program" presents an explanation of the effects of the intermediate assumptions on the estimates in this report.

The January 1, 1994 average update of the allowable fee for physician services is assumed to be 4.0 percent. The intermediate assumptions assume the January 1, 1995 average update to be 5.9 percent. This average update is a weighted average of the updates of the allowed fees for various goods and services included in the "physician" category. Besides physician services, the "physician" category also includes some goods and services not considered to be purely physician services such as laboratory tests performed in a physician's office, durable medical equipment (DME), ambulance services, and services performed in a free-standing ambulatory surgical center. The costs per enrollee for institutional and other services under the SMI program are projected to increase an average of 14.0 percent for CY 1994 and 14.1 percent for CY 1995. These increases are due to factors such as price, volume, and intensity.

Table I.C1 shows the estimated operations of the trust fund under the intermediate assumptions on a fiscal-year basis through FY 1996. Table I.C2 shows the corresponding development on a calendar-year basis. These tables show that the level of the trust fund increased in FY 1993 while it decreased in CY 1993. However, the display in Table I.C2 is misleading in assessing the impact that the operations of the trust fund had on the CY 1993 trust fund balance. There are two anomalies that occurred that effect the trust fund balance at the end of both CY 1992 and 1993, and, therefore, it would be better to first adjust these balances for the anomalies before making this assessment. The first anomaly is that the trust fund balance at the end of CY 1992 is higher than it ordinarily would be. Section 708 of Title VII of the Social Security Act modifies the delivery day of Social Security benefit checks when the regularly designated delivery day falls on a Saturday, Sunday or legal public holiday. As a result, the benefit checks were delivered on December 31, 1992 instead of January 3, 1993, a Sunday. Consequently, the SMI premiums withheld from the checks (\$1,089 million) and the general revenue contributions (\$3,175 million) were added to the SMI trust fund on December 31, 1992 instead of January 3, 1993. If the checks had been delivered in January 1993, the trust fund balance at the end of CY 1992 would have been

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\$19,972 million instead of \$24,235 million. The second anomaly is due to the passage of Public Law 102-394, after the financing for CY 1993 had been established, which authorized the transfer of the funds in the SMI catastrophic coverage reserve fund to the HI trust fund to compensate for the increased costs to that fund which occurred in 1989. This transfer of \$1,805 million occurred on March 31, 1993. Adjusting for this anomaly would raise the CY 1993 trust fund balance to \$25,936 million. With these adjustments in mind, the actuarial rates for CY 1993 were promulgated with specific margins to reduce aged assets and to increase disabled assets. However, actual expenditures were lower than those estimated at the time the financing was established for CY 1993. Therefore, after adjusting the trust fund balances for the anomalies, the fund increased in CY 1993.

The actuarial rates for CY 1994 were promulgated with specific margins to reduce assets. Based on these actuarial rates and the above economic assumptions, the fund is estimated to decrease to a level of \$17.4 billion by the end of CY 1994 and then decrease to \$9.5 billion by the end of CY 1995.

TABLE I.C1.—OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS) DURING FISCAL YEARS 1967-1996

[In millions]

Fiscal year ¹	Income				Disbursements			Balance at end of year ⁴
	Premium from enrollees	Government contributions ²	Interest and other income ³	Total Income	Benefit payments	Administrative expenses	Total disbursements	
1967	647	623	15	1,285	664	135 ⁵	799	486
1968	698	634	21	1,353	1,390	142	1,532	307
1969	903	984	24	1,911	1,645	195	1,840	378
1970	936	928	12	1,876	1,979	217	2,196	57
1971	1,253	1,245	18	2,516	2,035	248	2,283	290
1972	1,340	1,365	29	2,734	2,255	289	2,544	481
1973	1,427	1,430	45	2,902	2,391	246	2,637	746
1974	1,704	2,029	76	3,809	2,874	409	3,283	1,272
1975	1,887	2,330	105	4,322	3,765	405	4,170	1,424
1976	1,951	2,939	104	4,994	4,672	528	5,200	1,219
T.Q.	539	878	4	1,421	1,269	132	1,401	1,239
1977	2,193	5,053	137	7,383	5,867	475	6,342	2,279
1978	2,431	6,386	228	9,045	6,852	504	7,356	3,968
1979	2,635	6,841	363	9,839	8,259	555	8,814	4,994
1980	2,928	6,932	415	10,275	10,144	593	10,737	4,532
1981	3,320	8,747	372	12,439	12,345	883	13,228	3,743
1982	3,831	13,323	473	17,627	14,806	754	15,560	5,810

Historical Data:

TABLE I.C1.—OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS) DURING FISCAL YEARS 1967-1996

[In millions]

Fiscal year ¹	Income				Disbursements			Balance at end of year ⁴
	Premium from enrollees	Government contributions ²	Interest and other income ³	Total Income	Benefit payments	Administrative expenses	Total disbursements	
1983	4,227	14,238	682	19,147	17,487	824	18,311	6,646
1984	4,907	16,811	807	22,525	19,473	899	20,372	8,799
1985	5,524	17,898	1,155	24,577	21,808	922	22,730	10,646
1986	5,699	18,076	1,228	25,003	25,169	1,049	26,218	9,432
1987	6,480	20,299	1,018	27,797	29,937	900	30,837	6,392
1988	8,756	25,418	828	35,002	33,682	1,265	34,947	6,447
1989	11,548 ⁶	30,712	1,022 ⁶	43,282 ⁶	36,867	1,450 ⁶	38,317 ⁶	11,412 ⁶
1990	11,494 ⁶	33,210	1,434 ⁶	46,138 ⁶	41,498	1,524 ⁶	43,022 ⁶	14,527 ⁶
1991	11,807	34,730	1,629	48,166	45,514	1,505	47,019	15,675
1992	12,748	38,684	1,717	53,149	48,627	1,661	50,288	18,535
1993	14,683	44,227	1,889	60,799	54,214 ⁷	1,845	56,059	23,276
Estimates:								
1994	16,830	38,188	1,867	56,885	58,192	1,738	59,930	20,231
1995	19,228	39,755	1,113	60,096	65,644	1,812	67,456	12,871
1996	19,347	54,273	512	74,132	73,534	1,892	75,426	11,577

¹For 1967 through 1976, fiscal years cover the interval from July 1 through June 30; the 3-month interval from July 1, 1976, through September 30, 1976, is labeled "T.Q.", the transition quarter; FY 1977-96 cover the interval from October 1 through September 30.

²The payments shown as being from the general fund of the Treasury include certain interest-adjustment items.

³Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and other miscellaneous income.

⁴The financial status of the program depends on both the total net assets and the liabilities of the program (See Table I.D2).

⁵Administrative expenses shown include those paid in FY 1966 and 1967.

⁶Includes the impact of the Medicare Catastrophic Coverage Act of 1988 (Public Law 100-360).

⁷Includes the impact of the transfer to the HI trust fund of the SMI catastrophic coverage reserve fund on March 31, 1993 as specified in Public Law 102-394. Actual benefit payments for FY 1993 are \$52,409 million and the amount transferred was \$1,805 million.

Overview

TABLE I.C2.—OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS) DURING CALENDAR YEARS 1966-1996

[In millions]

Calendar year	Income				Disbursements			Balance at end of year ³
	Premium from enrollees	Government contributions ¹	Interest and other income ²	Total income	Benefit payments	Administrative expenses	Total disbursements	
Historical Data:								
1966	\$322	\$0	\$2	\$324	\$128	\$75	\$203	\$122
1967	640	933	24	1,597	1,197	110	1,307	412
1968	832	858	21	1,711	1,518	184	1,702	421
1969	914	907	18	1,839	1,865	196	2,061	199
1970	1,096	1,093	12	2,201	1,975	237	2,212	188
1971	1,302	1,313	24	2,639	2,117	260	2,377	450
1972	1,382	1,389	37	2,808	2,325	289	2,614	643
1973	1,550	1,705	57	3,312	2,526	318	2,844	1,111
1974	1,804	2,225	95	4,124	3,318	410	3,728	1,506
1975	1,918	2,648	107	4,673	4,273	462	4,735	1,444
1976	2,060	3,810	107	5,977	5,080	542	5,622	1,799
1977	2,247	5,386	172	7,805	6,038	467	6,505	3,099
1978	2,470	6,287	299	9,056	7,252	503	7,755	4,400
1979	2,719	6,645	404	9,768	8,708	557	9,265	4,902
1980	3,011	7,455	408	10,874	10,635	610	11,245	4,530
1981	3,722 ⁴	11,291 ⁴	361	15,374	13,113	915	14,028	5,877
1982	3,697 ⁴	12,284 ⁴	599	16,580	15,455	772	16,227	6,230
1983	4,236	14,861	727	19,824	18,106	878	18,984	7,070
1984	5,167	17,054	959	23,180	19,661	891	20,552	9,698
1985	5,613	18,250	1,243	25,106	22,947	933	23,880	10,924
1986	5,722	17,802	1,141	24,665	26,239	1,060	27,299	8,291
1987	7,409 ⁵	23,560 ⁵	875	31,844	30,820	920	31,740	8,394
1988	8,761 ⁵	26,203 ⁵	861	35,825	33,970	1,260	35,230	8,990
1989	12,263 ⁶	30,852	1,234 ⁶	44,349 ⁶	38,294	1,489 ⁶	39,783 ⁶	13,556 ⁶
1990	11,320	33,035	1,558	45,913	42,468	1,519	43,987	15,482
1991	11,934	37,602	1,688	51,224	47,336	1,541	48,877	17,828
1992	14,077 ⁷	41,359 ⁷	1,801	57,237	49,260	1,570	50,830	24,235
1993	14,193 ⁷	41,465 ⁷	2,021	57,679	55,784 ⁸	2,000	57,784	24,131
Estimates:								
1994	17,381	36,148	1,489	55,018	60,044	1,749	61,793	17,356
1995	19,844	40,957	765	61,566	67,577	1,833	69,410	9,512
1996	19,181	58,711	448	78,340	75,638	1,912	77,550	10,302

¹The payments shown as being from the general fund of the Treasury include certain interest adjustment items.

Expected Operations

²Other income includes recoveries of amounts reimbursed from the trust fund which are not obligations of the trust fund and other miscellaneous income.

³The financial status of the program depends on both the total net assets and the liabilities of the program (See Table I.D2).

⁴Section 708 of Title VII of the Social Security Act modified the provisions for the delivery of Social Security benefit checks when the regularly designated delivery day falls on a Saturday, Sunday, or legal public holiday. Delivery of benefit checks normally due January, 1982 occurred on December 31, 1981. Consequently the SMI premiums withheld from the checks (\$264 million) and the general revenue contributions (\$883 million) were added to the SMI trust fund on December 31, 1981. These amounts are excluded from the premium income and general revenue income for CY 1982.

⁵Delivery of benefit checks normally due January, 1988 occurred on December 31, 1987. Consequently, the SMI premiums withheld from the checks (\$692 million) and the general revenue contributions (\$2,178 million) were added to the SMI trust fund on December 31, 1987. These amounts are excluded from the premium income and general revenue income for CY 1988 (Refer to footnote 4).

⁶Includes the impact of the Medicare Catastrophic Coverage Act of 1988 (Public Law 100-360).

⁷Delivery of benefit checks normally due January, 1993 occurred on December 31, 1992. Consequently, the SMI premiums withheld from the checks (\$1,089 million) and the general revenue contributions (\$3,175 million) were added to the SMI trust fund on December 31, 1992. These amounts are excluded from the premium income and general revenue income for CY 1993 (Refer to footnote 4).

⁸Includes the impact of the transfer to the HI trust fund of the SMI catastrophic coverage reserve fund on March 31, 1993 as specified in Public Law 102-394. Actual benefit payments for CY 1993 are \$53,979 million and the amount transferred was \$1,805 million.

Table I.C3 shows the calendar-year average increase in aggregate and per capita benefit payments on a cash basis under the intermediate assumptions through CY 1996. To reflect the size of the program relative to the economy as a whole, Table I.C3 also shows SMI benefit expenditures on a cash basis as a percent of GDP. During CY 1993, the program grew 9.6 percent on an aggregate basis, grew 7.4 percent on a per capita basis, and increased from 0.82 to 0.85 percent of GDP. For CY 1994, the program is expected to grow 11.2 percent on an aggregate basis, to grow 9.1 percent on a per capita basis, and to increase from 0.85 to 0.89 percent of GDP.

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TABLE I.C3.—GROWTH IN TOTAL CASH BENEFITS UNDER THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM THROUGH DECEMBER 31, 1996

Calendar year	Aggregate benefits [millions]	Percent change	Per capita benefits	Percent change	SMI benefits as a percent of GDP
Historical Data:					
1967	\$1,197		\$66.97		0.15
1968	1,518	26.8	82.27	22.8	0.17
1969	1,865	22.9	97.86	19.0	0.19
1970	1,975	5.9	101.30	3.5	0.20
1971	2,117	7.2	106.68	5.3	0.19
1972	2,325	9.8	114.91	7.7	0.19
1973	2,526	8.6	122.02	6.2	0.19
1974	3,318	31.4	144.47	18.4	0.23
1975	4,273	28.8	179.96	24.6	0.27
1976	5,080	18.9	207.39	15.2	0.29
1977	6,038	18.9	239.27	15.4	0.31
1978	7,252	20.1	279.58	16.8	0.32
1979	8,708	20.1	326.86	16.9	0.35
1980	10,635	22.1	389.87	19.3	0.39
1981	13,113	23.3	471.15	20.8	0.43
1982	15,455	17.9	545.55	15.8	0.49
1983	18,106	17.2	627.79	15.1	0.53
1984	19,661	8.6	670.77	6.8	0.52
1985	22,947	16.7	768.25	14.5	0.57
1986	26,239	14.3	861.37	12.1	0.61
1987	30,820	17.5	992.69	15.2	0.68
1988	33,970	10.2	1,076.64	8.5	0.69
1989	38,294	12.7	1,195.42	11.0	0.73
1990	42,468	10.9	1,305.14	9.2	0.77
1991	47,336	11.5	1,426.90	9.3	0.83
1992	49,260	4.1	1,455.16	2.0	0.82
1993	53,979	9.6	1,562.30	7.4	0.85
Estimates:					
1994	60,044	11.2	1,703.81	9.1	0.89
1995	67,577	12.5	1,883.89	10.6	0.95
1996	75,638	11.9	2,077.40	10.3	1.01

Table I.C4 shows the estimated incurred disbursements of the SMI program under the intermediate assumptions expressed as a percentage of GDP, for selected years over the period CY 1993-2068. These estimated incurred disbursements are for benefit payments and administrative expenses combined unlike the values in Table I.C3 which only express benefit payments on a cash basis as a percentage of GDP. The 75-year projection period fully allows for the presentation of future contingencies that reasonably may be expected to

occur, such as the impact of a large increase in enrollees which occurs after the turn of the century. This large increase in enrollees occurs because the relatively large number of persons born during the period between the end of World War II and the early 1960's (known as the "baby boom") will reach retirement age and begin to receive benefits. Increases in the costs per enrollee during the initial 25-year period are assumed to gradually decline in the last 12 years to the same rate as GDP per capita and then continue at the same rate as GDP per capita in the last 50 years. Given the historical experience of SMI costs per enrollee increasing faster than GDP per capita, the assumption of the increases in costs per enrollee declining to the same rate as GDP per capita may be considered optimistic because changes in the last 50 years of the estimation period reflect only the impact of the changing demographic composition of the population. Based on these assumptions, incurred SMI disbursements as a percentage of GDP increase rapidly from 0.88 percent in CY 1993 to 4.19 percent in CY 2036, decrease slightly to 4.05 percent in CY 2051, and then increases to 4.37 percent in CY 2068.

**TABLE I.C4.—SUPPLEMENTARY MEDICAL INSURANCE INCURRED
DISBURSEMENTS AS A PERCENT OF THE GROSS DOMESTIC PRODUCT¹**

Calendar year	SMI Disbursements as a percent of GDP
1993	0.88
1994	0.93
1995	0.99
2000	1.31
2005	1.77
2010	2.37
2015	2.91
2020	3.27
2025	3.67
2030	4.01
2035	4.17
2040	4.16
2045	4.10
2050	4.05
2055	4.09
2060	4.21
2065	4.33
2068	4.37

¹Disbursements are the sum of benefit payments and administrative expenses.

Since future health care usage and cost experience may vary considerably from the intermediate assumptions on which the cost estimates were based,

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estimates have also been prepared on the basis of two additional alternative sets of assumptions: low cost and high cost. The estimated operations of the SMI trust fund during CY 1993-2003 are summarized in Table I.C5 for all three alternatives. The assumptions underlying the intermediate assumptions are presented in substantial detail in the section II.D "Actuarial Methodology and Principal Assumptions for Cost Estimates for the Supplementary Medical Insurance Program." The assumptions used in preparing estimates under the low cost and high cost alternatives are also summarized in this section.

TABLE I.C5.—ESTIMATED OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS) DURING CALENDAR YEARS 1993-2003

[In billions]

Calendar year	Premiums from enrollees	Other Income ¹	Total Income	Total disbursements	Balance in fund at end year
Intermediate:					
1993	14.2	43.5	57.7	56.0	24.1
1994	17.4	37.6	55.0	61.8	17.4
1995	19.8	41.7	61.6	69.4	9.5
1996	19.2	59.2	78.3	77.6	10.3
1997	21.4	65.8	87.2	86.4	11.1
1998	23.9	73.3	97.2	96.3	11.9
1999	25.1	83.6	108.6	107.6	12.9
2000	26.2	95.2	121.4	120.4	14.0
2001	27.5	108.6	136.1	134.9	15.2
2002	28.9	124.0	152.8	151.5	16.6
2003	30.4	141.6	171.9	170.4	18.1
Low Cost:					
1993	14.2	43.5	57.7	56.0	24.1
1994	17.4	37.7	55.0	61.4	17.8
1995	19.8	40.4	60.3	68.1	9.9
1996	18.6	57.4	76.0	75.2	10.7
1997	20.5	63.0	83.5	82.8	11.4
1998	22.6	69.2	91.8	91.0	12.2
1999	23.5	77.3	100.8	99.9	13.1
2000	24.5	85.9	110.4	109.4	14.1
2001	25.6	95.5	121.0	119.9	15.3
2002	26.6	106.1	132.6	131.5	16.4
2003	27.7	117.9	145.6	144.4	17.7
High Cost:					
1993	14.2	43.5	57.7	56.0	24.1
1994	17.4	37.6	55.0	61.9	17.2

*Expected Operations***TABLE I.C5.—ESTIMATED OPERATIONS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND (CASH BASIS) DURING CALENDAR YEARS 1993-2003**

(In billions)

Calendar year	Premiums from enrollees	Other Income ¹	Total Income	Total disbursements	Balance in fund at end year
1995	19.8	42.6	62.4	70.3	9.4
1996	20.0	61.6	81.5	80.8	10.1
1997	22.8	70.3	93.1	92.2	11.0
1998	26.0	79.4	105.4	104.4	12.0
1999	28.0	92.8	120.8	119.7	13.1
2000	29.6	109.9	139.6	138.3	14.4
2001	31.4	129.3	160.7	159.3	15.8
2002	33.4	151.5	184.9	183.2	17.4
2003	35.5	177.6	213.1	211.2	19.3

¹ Other income contains government contributions and interest.

NOTE: Totals do not necessarily equal the sum of rounded components.

The three sets of assumptions were selected in order to indicate the general range in which the cost of the program reasonably might be expected to fall. The low and high cost alternatives provide for a fairly wide range of possible experience. Actual experience is expected to fall within the range, but no assurance can be given that this will be the case, particularly in light of the wide variations in experience that have occurred since the beginning of the program.

SMI expenditures are estimated to grow faster than the GDP under all three alternatives, with the most rapid growth occurring under the high cost alternative and the least rapid under the low cost alternative. Table I.C5 indicates that by CY 2003 total disbursements for the low cost and for the high cost alternatives will be 15 percent lower and 24 percent higher, respectively, than for the intermediate assumptions. Similarly, for CY 2003 total income for the low cost and for the high cost alternatives will be 15 percent lower and 24 percent higher, respectively, than for the intermediate assumptions. However, the trust fund balances for the low cost and the high cost alternatives do not display this divergence. The CY 2003 trust fund balance under the low cost alternative is 2 percent lower than the trust fund balance for the intermediate assumptions, and the trust fund balance for the high cost alternative is 7 percent higher than under the intermediate assumptions. The reason the trust fund balances show much smaller

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variations under the three alternatives is that the financing has only been fully established through CY 1994. It is assumed that financing for years beyond 1994 will be established to adequately finance the expenditures, irrespective of the underlying economic assumptions.

D. ACTUARIAL STATUS OF THE TRUST FUND

I. Actuarial Soundness of the Supplementary Medical Insurance Program

The concept of actuarial soundness, as it applies to the SMI program, is closely related to the concept as it applies to many private group insurance plans. The SMI program essentially is yearly renewable term insurance financed from premium income paid by the enrollees and from income contributed from general revenue by the federal government. Consequently, the income to the program during a 12-month period for which financing is being established should be sufficient to maintain assets at a level to pay for services (including associated administrative costs) expected to be rendered during that period, even though payment for some of these services will not be made until after the close of the period. The portion of income required to cover those benefits not paid until after the close of the year is added to the trust fund. Thus, the assets in the trust fund at any time should be no less than the costs of the benefits and the administrative expenses incurred but not yet paid.

The law requires the Secretary of Health and Human Services (HHS) to establish income on the basis of incurred costs (including associated administrative costs) for the 12-month period for which financing is being established. Financing on an incurred basis means that income should be sufficient to cover the cost of services rendered during the period. However, since the income per enrollee (premium rate plus Government contribution) is established prospectively, it is subject to projection error. Additionally, legislation enacted after the financing has been established but effective for the period for which financing has been set may affect program costs. As a result, the income to the program may not be equal to incurred costs; therefore, trust fund assets should be maintained at a level which is adequate to cover a reasonable degree of variation between actual and projected costs, in case actual costs exceed projected, as well as the value of incurred but unpaid expenses.

In testing the actuarial soundness of the SMI program, it is appropriate to look only to the periods for which the enrollee premium rates and level of general revenue financing have been established. The primary tests of actuarial soundness, then, are that: (1) assets and income for years for which financing has been established be sufficient to meet the projected benefits and associated administrative expenses incurred for that period and (2) assets be sufficient to cover projected liabilities that will have been incurred by the end of that time but will not have been paid yet. Even if these tests of actuarial soundness are not met, the program can continue to operate if the trust fund remains at a level adequate to permit the payment of claims as presented. However, to protect against the possibility that costs under the program will be higher than assumed, assets should be sufficient to include contingency levels to cover a reasonable degree of variation between actual and projected costs, in case actual costs exceed projected.

Contingency levels to accommodate costs that may be higher than expected are measured by the excess of assets over liabilities. An appropriate target level for this excess depends on numerous factors. The most important of these factors are: (1) the difference from prior years in the actual performance of the program and the estimates made at the time financing was established and (2) the expected relationship between incurred and cash expenditures. Ongoing analysis is made of the former as trends in the differences vary over time.

2. Incurred Experience of the Supplementary Medical Insurance Program

The tests of actuarial soundness of the SMI program noted above rely on the incurred experience of the program. Cash disbursements for benefits and administrative expenses by themselves are misleading, due to the relatively large liabilities outstanding at any time for benefits and processing costs. Outstanding liabilities result from the lag between the time that services are performed and the time that payments for them are made.

The experience of the program is substantially more difficult to determine on an incurred basis than on a cash basis. Payment for some services is reported only on a cash basis, and the incurred experience must be inferred from the cash payment information. For recent time periods, the tabulations of bills are incomplete due to normal processing delays. Finally, since bills are tabulated only for a sample of beneficiaries, the data is subject to biases and random fluctuations inherent in the sampling process.

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Table I.D1 shows the estimated transactions of the trust fund on an incurred basis. For the reasons stated above, the incurred experience must be viewed as an estimate even for historical years. Various tests, such as the comparison to cash outlay data, assure that the estimates are reasonably close, however.

TABLE I.D1.—ESTIMATED INCOME AND DISBURSEMENTS INCURRED UNDER THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM FOR FINANCING PERIODS THROUGH DECEMBER 31, 1994

[In millions]

Financing period	Premiums from enrollees	Government contributions	Interest and other income	Benefit payments	Administrative expenses	Net operations in year
Historical Data:						
12-Month period ending June 30,						
1967	\$647	\$647	\$15	\$1,109	\$123 ¹	\$77
1968	698	698	21	1,443	155	-181
1969	903	903	24	1,765	198	-133
1970	936	936	12	1,929	213	-258
1971	1,253	1,253	18	2,090	259	175
1972	1,340	1,340	29	2,289	259	161
1973	1,427	1,426	45	2,500	302	96
1974	1,704	2,031	76	3,174	353	284
1975	1,887	2,396	105	3,957	438	-7
1976	1,951	2,972	109	4,852	485	-305
1977	2,156	4,697	157	5,861	515	634
1978	2,358	5,991	254	6,924	511	1,168
1979	2,601	6,570	365	8,140	649	747
1980	2,823	6,627	421	9,839	645	-613
1981	3,178	8,219	371	11,906	692	-830
1982	3,737	12,488	495	13,888	728	2,104
1983	4,202	13,951	686	16,906	708	1,225
T.S. ²	2,120	7,836	374	9,720	483	127
Calendar year						
1984	5,167	17,052	962	20,345	869	1,967
1985	5,613	18,243	1,248	22,894	986	1,224
1986	5,722	17,802	1,141	26,633	1,000	-2,968
1987	6,717	21,377	880	30,800	1,036	-2,862
1988	9,453	28,342	903	34,615	1,343	2,740
1989	12,263 ³	30,826	1,257 ³	38,192	1,386 ³	4,768 ³
1990	11,320	33,035	1,558	42,527	1,541	1,845
1991	11,934	37,558	1,732	46,583	1,572	3,069

TABLE I.D1.—ESTIMATED INCOME AND DISBURSEMENTS INCURRED UNDER THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM FOR FINANCING PERIODS THROUGH DECEMBER 31, 1994

[in millions]

Financing period	Premiums from enrollees	Government contributions	Interest and other income	Benefit payments	Administrative expenses	Net operations in year
1992	12,988	38,158	1,827	49,684	1,663	1,626
1993	15,282	44,640	2,021	55,921 ⁴	1,703	4,319
Estimates:						
1994	17,381	36,148	1,489	60,702	1,749	-7,433

¹Includes administrative expenses incurred prior to the beginning of the program.

²The transition semester (T.S.) is the 6-month period July 1, 1983 to December 31, 1983.

³Includes the impact of the Medicare Catastrophic Coverage Act of 1988 (Public Law 100-360).

⁴Includes the impact of the transfer to the HI trust fund of the SMI catastrophic coverage reserve fund on March 31, 1993 as specified in Public Law 102-394. Estimated incurred payments for CY 1993 are \$54,116 million and the amount transferred was \$1,805 million.

3. Accumulated Excess of Assets Over Liabilities

The liability outstanding at any time for the cost of services performed for which no payment has been made is referred to as "benefits incurred but unpaid." Estimates of the amount of benefits incurred but unpaid as of the end of each financing period, and of the administrative expenses related to processing these benefits, appear in Table I.D2. For some years of the program, assets have not been as large as liabilities. Nonetheless, the fund has remained positive, allowing claims to be paid.

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TABLE I.D2.—SUMMARY OF ESTIMATED ASSETS AND LIABILITIES OF THE SUPPLEMENTARY MEDICAL INSURANCE PROGRAM AS OF THE END OF THE FINANCING PERIOD, FOR PERIODS THROUGH DECEMBER 31, 1994

[Dollar amounts in millions]

	Balance in trust fund	Government contributions due but unpaid	Total assets	Benefits incurred but unpaid	Administrative costs incurred but unpaid	Total liab- ilities	Excess of assets over liabilities	Ratio ¹
Historical Data:								
As of June 30,								
1967	\$486	\$24	\$510	\$445	-\$12	\$433	\$77	0.05
1968	307	88	395	498	1	499	-104	-0.05
1969	378	7	385	618	4	622	-237	-0.11
1970	57	15	72	568	0	568	-496	-0.21
1971	290	22	312	623	11	634	-322	-0.13
1972	481	-3	478	657	-19	638	-160	-0.06
1973	746	-7	739	766	37	803	-64	-0.02
1974	1,272	-5	1,267	1,066	-19	1,047	220	0.05
1975	1,424	67	1,491	1,258	14	1,272	219	0.04
1976	1,219	106	1,325	1,438	-29	1,409	-84	-0.01
1977	2,170	91	2,261	1,710	3	1,713	548	0.07
1978	3,786	48	3,834	2,077	40	2,117	1,717	0.20
1979	4,880	2	4,882	2,297	123	2,420	2,462	0.24
1980	4,657	0	4,657	2,620	188	2,808	1,849	0.15
1981	3,801	0	3,801	2,768	13	2,781	1,020	0.07
1982	5,534	1	5,535	2,420	-9	2,411	3,124	0.18
1983	6,780	2	6,782	2,481	-48	2,443	4,349	0.21
As of December 31,								
1983	7,070	1	7,071	2,663	-69	2,594	4,477	0.21
1984	9,698	2	9,700	3,347	-91	3,256	6,444	0.27
1985	10,924	0	10,924	3,294	-38	3,256	7,668	0.28
1986	8,291	0	8,291	3,688	-98	3,590	4,701	0.15
1987	8,394 ²	0	8,394 ²	3,668	17	6,555 ²	1,839	0.05
1988	8,990	3	8,993	4,313	100	4,413	4,580	0.12
1989 ³	13,556	0	13,556	4,211	-3	4,208	9,348	0.21
1990	15,482	0	15,482	4,270	19	4,289	11,193	0.23
1991	17,828	0	17,828	3,517	50	3,567	14,261	0.28
1992	24,235 ⁴	0	24,235 ⁴	3,941	143	8,347 ⁴	15,888	0.29
1993	24,131	0	24,131	4,078	-154	3,924	20,207	0.32
Estimates:								
1994	17,356	0	17,356	4,736	-154	4,582	12,774	0.18

¹Ratio of the excess of assets over liabilities to the following year's total incurred expenditures.

²Section 708 of Title VII of the Social Security Act modified the provisions for the delivery of Social Security benefit checks when the regularly designated day falls on a Saturday, Sunday, or legal public holiday. Delivery of benefit checks normally due January, 1988 occurred on December 31, 1987. Consequently, the SMI premiums withheld from the checks (\$692 million) and the general revenue matching contributions (\$2,178 million) were added to the SMI trust fund on December 31, 1987 and were included in the liabilities.

³The 1989 transactions of Medicare Catastrophic Coverage Account are included in the assets and liabilities of the trust fund.

⁴Section 708 of Title VII of the Social Security Act modified the provisions for the delivery of Social Security benefit checks when the regularly designated day falls on a Saturday, Sunday, or legal public holiday. Delivery of benefit checks normally due January, 1993 occurred on December 31, 1992. Consequently, the SMI premiums withheld from the checks (\$1,089 million) and the general revenue matching contributions (\$3,175 million) were added to the SMI trust fund on December 31, 1992 and were included in the liabilities.

Program financing has been established through December 31, 1994. The financing for CY 1994 was designed with specific margins to reduce the excess of assets over liabilities as a percent of incurred expenditures for the following year, as is explained in appendix III.B. As a result, the CY 1994 incurred disbursements are expected to exceed the incurred income by \$7,433 million, as shown in Table I.D1, and the excess of assets over liabilities is expected to decrease from \$20,207 million at the end of December 1993 to \$12,774 million at the end of December 1994 for the intermediate assumptions, as shown in Table I.D2. This excess as a percent of incurred expenditures for the following year is expected to decrease from 32 percent as of December 31, 1993 to 18 percent as of December 31, 1994.

4. Sensitivity Testing

Some of the assumptions underlying the estimates presented in this report are highly uncertain, and variations in these assumptions would have a substantial impact on estimated expenditures. Since the financing rates are set prospectively, the actuarial soundness depends on the variations in these assumptions. In order to test the actuarial soundness of the program under varying assumptions, a lower range projection and an upper range projection were prepared by varying these key assumptions through the period for which the financing has been set. The lower and upper range alternative sets of assumptions are intended to reflect growth rates for the various components of program costs which are more favorable and adverse, respectively, than those of the intermediate assumptions. These two alternative sets of assumptions are reasonable in light of the nature and historical experience of the program. As such, they provide a range of financial outcomes within which the actual experience of the program might reasonably be expected to fall. The values for the lower and upper range assumptions were determined

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from a study on the average historical variation in the respective increase factors.

This sensitivity analysis differs from the low cost and high cost analysis discussed in the section I.C "Expected Operations and Status of the Trust Fund." This analysis examines the variation in the projection factors through the period for which the financing has been established (1994 for this report). The low cost and high cost analysis begins the variation in program growth within the year for which financing has been established (1994 for this report) and continues through the projection period.

Table I.D3 indicates that, under the lower range assumptions, trust fund assets would exceed liabilities by the end of December 1994 (the period through which financing has been established), reaching a level of 24.1 percent of the following year's incurred expenditures. If these lower range assumptions were actually to materialize, then subsequent financing rates would be adjusted downward in order to lower the excess of assets over liabilities to an appropriate level to maintain the actuarial soundness of the trust fund. Under the upper range assumptions, trust fund assets would still exceed liabilities by the end of December 1994, dropping to a level of 8.1 percent of the following year's incurred expenditures. Therefore, even if these upper range growth rates were to occur, assets would still be sufficient to cover outstanding liabilities. Figure 3 shows this ratio for historical years and for projected years under the intermediate assumptions, as well as the lower range (optimistic) and the upper range (pessimistic) cost sensitivity scenarios.

Table I.D3.—ACTUARIAL STATUS OF THE SUPPLEMENTARY MEDICAL INSURANCE TRUST FUND UNDER THREE SETS OF ASSUMPTIONS FOR FINANCING PERIODS THROUGH DECEMBER 31, 1994

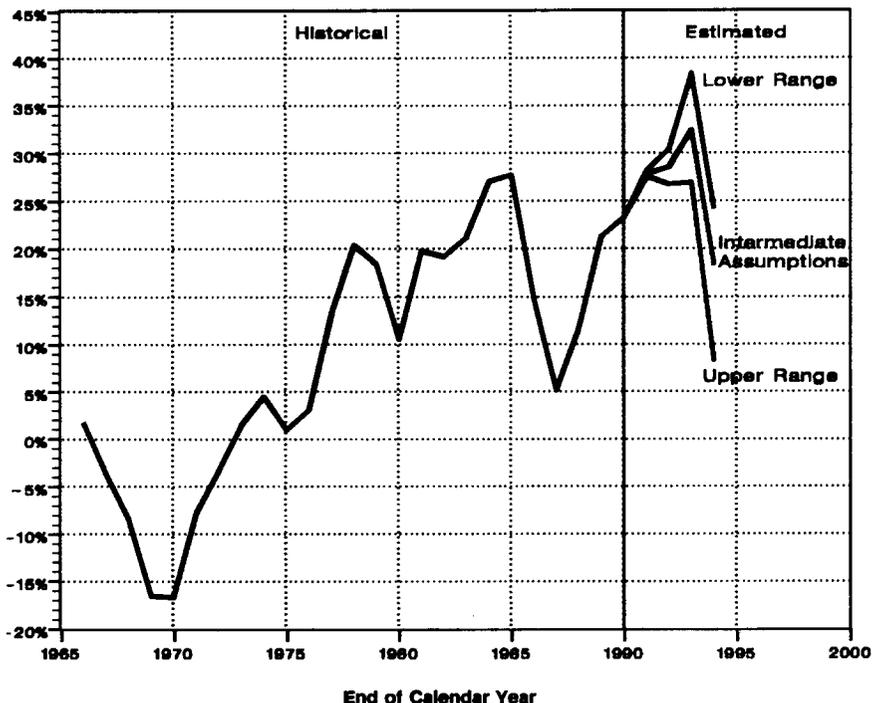
	Intermediate projection			Lower range projection			Upper range projection		
	12-Month period ending June 30,			12-Month period ending June 30,			12-Month period ending June 30,		
	1993	1994	1995	1993	1994	1995	1993	1994	1995
Projection factors (in percent):									
Physician fees¹									
Aged	0.5	2.6	5.0	0.3	2.0	3.0	0.7	3.2	7.0
Disabled	0.5	2.6	5.0	0.3	2.0	3.0	0.7	3.2	7.0
Utilization of physician services²									
Aged	-1.0	4.3	3.8	-2.6	2.6	1.4	0.6	5.9	6.2
Disabled	0.9	-4.7	2.4	-1.6	-7.5	-0.7	3.4	-1.8	5.5
Outpatient hospital services per enrollee									
Aged	12.0	11.2	11.7	8.0	6.3	6.2	16.1	16.1	17.2
Disabled	17.7	6.8	12.5	14.4	1.6	7.1	21.0	12.0	17.8
Actuarial status (in millions):									
As of December 31,									
	1992	1993	1994	1992	1993	1994	1992	1993	1994
Assets	\$19,972	\$24,131	\$17,356	\$19,972	\$24,131	\$21,131	\$19,972	\$24,131	\$13,366
Liabilities	4,084	3,924	4,582	3,564	1,639	2,117	4,606	6,254	7,107
Assets less liabilities	\$15,888	\$20,207	\$12,774	\$16,408	\$22,492	\$19,014	\$15,366	\$17,877	\$6,259
Ratio of assets less liabilities to expenditures (in percent)³									
	28.5	32.4	18.2	30.4	38.3	24.1	26.7	26.9	8.1

¹As recognized for payment under the program.

²Increase in the number of services received per enrollee and greater relative use of more expensive services.

³Ratio of assets less liabilities at the end of the year to the total incurred expenditures during the following year, expressed as a percent.

FIGURE 3
ACTUARIAL STATUS OF THE SUPPLEMENTARY MEDICAL INSURANCE
TRUST FUND THROUGH CALENDAR YEAR 1994



Note: The actuarial status of the SMI trust fund is measured by the ratio of the end of year surplus or deficit to the following year incurred expenditures.

E. CONCLUSION

The financing for the SMI program has been established through December 1994 by the setting of the standard monthly premium rate (paid by or on behalf of each enrollee) of \$41.10 for CY 1994 and of actuarial rates that determine the amount to be contributed from general revenue on behalf of each enrollee. General revenue contributions are expected to account for 65.7 percent of all SMI income during CY 1994.

Under the intermediate assumptions used in this report, disbursements are estimated to exceed income during CY 1994 by \$6,775 million. Income is composed of premiums paid by the enrollees, general revenue contributions,

and interest earned by the trust fund. As a result, the assets in the trust fund on a cash basis are estimated to decrease from \$24.1 billion at the end of CY 1993 to \$17.4 billion at the end of CY 1994.

The main reason for the decrease in assets during CY 1994 is that the financing for CY 1994 was established specifically to reduce assets. As a result, the excess of assets over liabilities is expected to decrease from \$20,207 million at the end of December 1993 to \$12,774 million by the end of December 1994 representing 18.2 percent of the following year's projected incurred expenditures. Under more pessimistic assumptions as to cost increases, assets based on financing already established will still be sufficient to cover outstanding liabilities. Hence, the financing established through December 1994 is sufficient to cover projected benefit and administrative costs incurred through that time period, and to maintain a level of trust fund assets adequate to cover the impact of a reasonable degree of variation between actual and projected costs.

Although the SMI program is currently actuarially sound, the Trustees note with great concern the past and projected rapid growth in the cost of the program. In spite of the evidence of slower growth rates in the recent past, overall, the past growth rates have been rapid, and the future growth rates are projected to increase above those of the recent past. Growth rates have been so rapid that outlays of the program have increased 59 percent in aggregate and 45 percent per enrollee in the last 5 years. For the same time period, the program grew 23 percent faster than the economy despite recent efforts to control the cost of the program. As a result, the incurred disbursements of the program are projected to increase from 0.88 percent of the GDP in CY 1993 to 4.37 percent of GDP in CY 2068. Initially, this rapid growth is attributable primarily to the inability to control (1) the growth in the volume of services billed per beneficiary and (2) the reported case mix intensity (the reporting of services which receive higher reimbursement). Later in the projection period, the changing demographic composition of the population will also have a major influence on the growth in program costs. Given the past and projected cost of the program, the Trustees urge the Congress to promptly take additional actions designed to control SMI costs through specific program legislation and as a part of enacting more comprehensive health care reform. The Trustees believe that prompt, effective, and decisive action is necessary.

